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EXAMINER

MORILLO, JANEL COMBS

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 10/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/070,651

Applicant(s)

KRAMER, ING CARL

Examiner

Janelle Combs-Morillo

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1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 11, 2005 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 17-22, 25, 29-32, 36, 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biswas et al (US 5,802,905) in view of Visser et al (US 5,027,634).

Concerning independent claims 17 and 36, Biswas teaches a device for treating metal extrusion billets (abstract) by a first heating device comprising a furnace heated by gas or electricity, a storage device to keep billets at a temperature equal to or slightly higher than the extrusion temperature, a cooling device (column 2 lines 32-38) with jets operable individually or in groups at different pressures and operating times (column 2 line 38, column 3 lines 37-42), and a transporting means to move the billets from the furnace to the cooling device (column 4 lines 26-28). Biswas teaches "relative movement of the metal block towards the cooling zones

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takes place at a controllable speed, and the intensity of cooling can be adjusted for each zone by adjusting the amount and/or pressure and/or temperature of the coolant” (column 2 lines 17-20).

Biswas does not teach said cooling device is configured in a horizontal orientation. However, Visser teaches that a metal extrusion billet (#16) can be horizontally cooled (Fig. 5, etc.) by a plurality of spray rings (#36) in order to create a temperature gradient which enables uniform properties along the length of the product with minimum defects such as tearing or hot shorting (abstract). It would have been obvious to one of ordinary skill in the art to combine a cooling device operable in a horizontal orientation, as taught by Visser, with the device for treating metal extrusion billets taught by Biswas, because Visser teaches that a metal extrusion billet (#16) can be horizontally cooled (Fig. 5, etc.) by a plurality of spray rings (#36) in order to create a temperature gradient which enables uniform properties along the length of the product with minimum defects such as tearing or hot shorting (abstract).

Though Visser does not specify the extrusion block is cooled while stationary, the device taught by combination of Biswas and Visser- a device with a plurality of spray nozzles operating at different temperatures and pressures (Biswas) as well as a horizontal configuration (Visser), is operable for stationary extrusion blocks.

Concerning claims 18-22, 25, 29-30, 32, 37, as stated above, Biswas teaches cooling device comprising nozzles in an annular arrangement (Fig. 2, 4), operable for different times, temperatures, and pressures.

Concerning claims 31 and 36, because the cooling device taught by Biwas operates at different parameters, said device is operable to provide a temperature taper (cl. 31). Additionally, Visser teaches a temperature taper is preferably created along the length of the billet (abstract).

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4. Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biswas and Visser in view of EP 696707 (EP'707). Biswas and Visser are discussed in paragraph 3 above.

Biswas does not mention said heating device uses gas burner flames.

However, EP'707 teaches that a gas regenerative burner flame means is a useful for heating furnaces to high temperatures (column 2 lines 15-16) in an efficient manner (column 2 lines 41-42) and with minimal heat loss (column 7 line 9). It would have been obvious to one of ordinary skill in the art to use a gas regenerative burner flame means, substantially as taught by EP'707, for the initial heating means of the extrusion billet taught by Biswas, because EP'707 teaches that said means is useful for heating to high temperatures with minimal heat loss.

5. Claims 26-28, 33-35, and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biswas and Visser in view of Bessey et al (US 4,825,677). Biswas and Visser are discussed in paragraph 3 above.

Though Biswas teaches the extrusion billet is held on a platform while cooling proceeds, Biswas does not teach a block holder and clamping means for said extrusion billet. However, Bessey teaches clamping can be used to transfer members from heating to cooling devices (column 4 lines 22-25, column 11 lines 30-43). It would have been obvious to one of ordinary skill in the art to use a clamping means, substantially as presently claimed, in the device for pretreating extrusion billets taught by Biswas and EP'707, because Bessey teaches said clamping can be used to transfer members from heating to cooling devices (column 4 lines 22-25, column 11 lines 30-43).

The manner of operating the device does not differentiate apparatus claim from the prior art. A claim containing a "recitation with respect to the manner in which a claimed apparatus is

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intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987) (The preamble of claim 1 recited that the apparatus was "for mixing flowing developer material" and the body of the claim recited "means for mixing ..., said mixing means being stationary and completely submerged in the developer material". The claim was rejected over a reference which taught all the structural limitations of the claim for the intended use of mixing flowing developer. However, the mixer was only partially submerged in the developer material. The Board held that the amount of submersion is immaterial to the structure of the mixer and thus the claim was properly rejected.). Because the prior art teaches an apparatus for heating and cooling extrusion billets, including a clamping means, the manner the clamping means is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus, the rejection is held to be proper.

Response to Amendment/Arguments

6. In the response filed on July 11, 2005, applicant amended claims 17-19 and 21, canceled claims 1-6, and added new claims 31-40.

7. Applicant's argument that the present invention is allowable over the prior art of record because Biswas does not teach said cooling device is configured in a horizontal orientation, has not been found persuasive. It is known in the art of heat treating metal alloy extrusion billets to configure the cooling device in a horizontal manner. Said horizontal cooling device is taught by Visser, and is combined with Biswas for the motivation listed above.

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8. Though Visser does not specify the extrusion block is cooled while stationary, the device taught by combination of Biswas and Visser- a device with a plurality of spray nozzles operating at different temperatures and pressures (Biswas) as well as a horizontal configuration (Visser), is operable for stationary extrusion blocks.


Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (571) 272-1240. The examiner can normally be reached on 8:30 am- 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCM 
September 30, 2005


GEORGE WYSZOMIERSKI
PRIMARY EXAMINER
GROUP 1700